

# Andrew D Ellington

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

299  
papers

26,597  
citations

74  
h-index

159  
g-index

326  
ext. papers

29,771  
ext. citations

11.5  
avg, IF

7.31  
L-index

#	Paper	IF	Citations
299	Evolving a Generalist Biosensor for Bicyclic Monoterpenes.. <i>ACS Synthetic Biology</i> , <b>2022</b> ,	5.7	2
298	Making Security Viral: Shifting Engineering Biology Culture and Publishing.. <i>ACS Synthetic Biology</i> , <b>2022</b> , 11, 522-527	5.7	0
297	Preparation and Use of Cellular Reagents: A Low-resource Molecular Biology Reagent Platform.. <i>Current Protocols</i> , <b>2022</b> , 2, e387		0
296	Machine learning-aided engineering of hydrolases for PET depolymerization.. <i>Nature</i> , <b>2022</b> , 604, 662-667	50.4	23
295	Developing predictive hybridization models for phosphorothioate oligonucleotides using high-resolution melting.. <i>PLoS ONE</i> , <b>2022</b> , 17, e0268575	3.7	
294	Learning the local landscape of protein structures with convolutional neural networks. <i>Journal of Biological Physics</i> , <b>2021</b> , 47, 435-454	1.6	1
293	Improved Bst DNA Polymerase Variants Derived a Machine Learning Approach. <i>Biochemistry</i> , <b>2021</b> ,	3.2	3
292	Heat adaptation of phage T7 under an extended genetic code.. <i>Virus Evolution</i> , <b>2021</b> , 7, veab100	3.7	0
291	Synthetic repertoires derived from convalescent COVID-19 patients enable discovery of SARS-CoV-2 neutralizing antibodies and a novel quaternary binding modality <b>2021</b> ,		4
290	High-Surety Isothermal Amplification and Detection of SARS-CoV-2. <i>MSphere</i> , <b>2021</b> , 6,	5	22
289	Guiding Ethical Principles in Engineering Biology Research. <i>ACS Synthetic Biology</i> , <b>2021</b> , 10, 907-910	5.7	4
288	Directed Evolution of an Improved Aminoacyl-tRNA Synthetase for Incorporation of L-3,4-Dihydroxyphenylalanine (L-DOPA). <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 14811-14816	16.4	4
287	Directed Evolution of an Improved Aminoacyl-tRNA Synthetase for Incorporation of L-3,4-Dihydroxyphenylalanine (L-DOPA). <i>Angewandte Chemie</i> , <b>2021</b> , 133, 14937-14942	3.6	4
286	Minimizing Leakage in Stacked Strand Exchange Amplification Circuits. <i>ACS Synthetic Biology</i> , <b>2021</b> , 10, 1277-1283	5.7	0
285	Producing molecular biology reagents without purification. <i>PLoS ONE</i> , <b>2021</b> , 16, e0252507	3.7	2
284	Ribosome-mediated incorporation of fluorescent amino acids into peptides in vitro. <i>Chemical Communications</i> , <b>2021</b> , 57, 2661-2664	5.8	5
283	Recombineering and MAGE.. <i>Nature Reviews Methods Primers</i> , <b>2021</b> , 1,		13

282	Delineation of the Ancestral Tus-Dependent Replication Fork Trap.. <i>International Journal of Molecular Sciences</i> , <b>2021</b> , 22,	6.3	1
281	Dynamic Programming of a DNA Walker Controlled by Protons. <i>ACS Nano</i> , <b>2020</b> , 14, 4007-4013	16.7	36
280	Site-specific 5-hydroxytryptophan incorporation into apolipoprotein A-I impairs cholesterol efflux activity and high-density lipoprotein biogenesis. <i>Journal of Biological Chemistry</i> , <b>2020</b> , 295, 4836-4848	5.4	8
279	Engineered symbionts activate honey bee immunity and limit pathogens. <i>Science</i> , <b>2020</b> , 367, 573-576	33.3	81
278	A facile technology for the high-throughput sequencing of the paired VH:VL and TCR $\alpha$ :TCR $\beta$ repertoires. <i>Science Advances</i> , <b>2020</b> , 6, eaay9093	14.3	12
277	Ribosomal incorporation of cyclic amino acids into peptides using in vitro translation. <i>Chemical Communications</i> , <b>2020</b> , 56, 5597-5600	5.8	13
276	Emulsion-based directed evolution of enzymes and proteins in yeast. <i>Methods in Enzymology</i> , <b>2020</b> , 643, 87-110	1.7	
275	Oligonucleotide-functionalized hydrogels for sustained release of small molecule (aptamer) therapeutics. <i>Acta Biomaterialia</i> , <b>2020</b> , 102, 315-325	10.8	12
274	Discovery of Novel Gain-of-Function Mutations Guided by Structure-Based Deep Learning. <i>ACS Synthetic Biology</i> , <b>2020</b> , 9, 2927-2935	5.7	18
273	One-Enzyme Reverse Transcription qPCR Using Taq DNA Polymerase. <i>Biochemistry</i> , <b>2020</b> , 59, 4638-4645	3.2	9
272	How a B family DNA polymerase has been evolved to copy RNA. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 21274-21280	11.5	3
271	Bringing Microscopy-By-Sequencing into View. <i>Trends in Biotechnology</i> , <b>2020</b> , 38, 154-162	15.1	2
270	Employing 25-Residue Docking Motifs from Modular Polyketide Synthases as Orthogonal Protein Connectors. <i>ACS Synthetic Biology</i> , <b>2019</b> , 8, 2017-2024	5.7	3
269	Single-Molecule Mechanistic Study of Enzyme Hysteresis. <i>ACS Central Science</i> , <b>2019</b> , 5, 1691-1698	16.8	11
268	Synthetic evolution. <i>Nature Biotechnology</i> , <b>2019</b> , 37, 730-743	44.5	36
267	Pattern Generation with Nucleic Acid Chemical Reaction Networks. <i>Chemical Reviews</i> , <b>2019</b> , 119, 6370-6383	33.1	32
266	Aptamers in Education: Undergraduates Make Aptamers and Acquire 21st Century Skills Along the Way. <i>Sensors</i> , <b>2019</b> , 19,	3.8	1
265	Selection of self-priming molecular replicators. <i>Nucleic Acids Research</i> , <b>2019</b> , 47, 2169-2176	20.1	3

264	Expanding the limits of the second genetic code with ribozymes. <i>Nature Communications</i> , <b>2019</b> , 10, 5097-5107	17.4	54
263	Retrons and their applications in genome engineering. <i>Nucleic Acids Research</i> , <b>2019</b> , 47, 11007-11019	20.1	35
262	Synthetic GPCRs and signal transduction cascades. <i>Emerging Topics in Life Sciences</i> , <b>2019</b> , 3, 609-614	3.5	0
261	Hachimoji DNA and RNA: A genetic system with eight building blocks. <i>Science</i> , <b>2019</b> , 363, 884-887	33.3	193
260	Reprogramming the brain with synthetic neurobiology. <i>Current Opinion in Biotechnology</i> , <b>2019</b> , 58, 37-44	11.4	2
259	Supercharging enables organized assembly of synthetic biomolecules. <i>Nature Chemistry</i> , <b>2019</b> , 11, 204-212	7.6	48
258	Synthesis of Ferrocene Derivatives Allowing Linear Free Energy Studies of Redox Potentials. <i>Helvetica Chimica Acta</i> , <b>2019</b> , 102, e1800186	2	2
257	Evolving Bacterial Fitness with an Expanded Genetic Code. <i>Scientific Reports</i> , <b>2018</b> , 8, 3288	4.9	4
256	Directed evolution of a synthetic phylogeny of programmable Trp repressors. <i>Nature Chemical Biology</i> , <b>2018</b> , 14, 361-367	11.7	36
255	Construction of synthetic T7 RNA polymerase expression systems. <i>Methods</i> , <b>2018</b> , 143, 110-120	4.6	11
254	Strand Displacement Probes Combined with Isothermal Nucleic Acid Amplification for Instrument-Free Detection from Complex Samples. <i>Analytical Chemistry</i> , <b>2018</b> , 90, 6580-6586	7.8	66
253	Evolution of a Thermophilic Strand-Displacing Polymerase Using High-Temperature Isothermal Compartmentalized Self-Replication. <i>Biochemistry</i> , <b>2018</b> , 57, 4607-4619	3.2	16
252	Continuous directed evolution for strain and protein engineering. <i>Current Opinion in Biotechnology</i> , <b>2018</b> , 53, 158-163	11.4	25
251	Portable platform for rapid in-field identification of human fecal pollution in water. <i>Water Research</i> , <b>2018</b> , 131, 186-195	12.5	22
250	Functional interrogation and mining of natively paired human V:V antibody repertoires. <i>Nature Biotechnology</i> , <b>2018</b> , 36, 152-155	44.5	80
249	Genetic Engineering of Bee Gut Microbiome Bacteria with a Toolkit for Modular Assembly of Broad-Host-Range Plasmids. <i>ACS Synthetic Biology</i> , <b>2018</b> , 7, 1279-1290	5.7	46
248	Fingerprinting Non-Terran Biosignatures. <i>Astrobiology</i> , <b>2018</b> , 18, 915-922	3.7	24
247	In Vitro Transcription Networks Based on Hairpin Promoter Switches. <i>ACS Synthetic Biology</i> , <b>2018</b> , 7, 1937-1945	5.7	11

246	Cellular reagents for diagnostics and synthetic biology. <i>PLoS ONE</i> , <b>2018</b> , 13, e0201681	3.7	13
245	Custom selenoprotein production enabled by laboratory evolution of recoded bacterial strains. <i>Nature Biotechnology</i> , <b>2018</b> , 36, 624-631	44.5	21
244	Compartmentalized Self-Replication for Evolution of a DNA Polymerase. <i>Current Protocols in Chemical Biology</i> , <b>2018</b> , 10, 1-17	1.8	3
243	How to Balance the Many Roles of tRNAs During the Creation of New Genetic Codes. <i>FASEB Journal</i> , <b>2018</b> , 32, 105.2	0.9	
242	A highly parallel strategy for storage of digital information in living cells. <i>BMC Biotechnology</i> , <b>2018</b> , 18, 64	3.5	7
241	Simultaneous Detection of Different Zika Virus Lineages via Molecular Computation in a Point-of-Care Assay. <i>Viruses</i> , <b>2018</b> , 10,	6.2	10
240	Effective design principles for leakless strand displacement systems. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, E12182-E12191	11.5	59
239	Viral attenuation by engineered protein fragmentation. <i>Virus Evolution</i> , <b>2018</b> , 4, vey017	3.7	1
238	Retroelement-Based Genome Editing and Evolution. <i>ACS Synthetic Biology</i> , <b>2018</b> , 7, 2600-2611	5.7	27
237	Predicting Evolution of the Transcription Regulatory Network in a Bacteriophage. <i>Genome Biology and Evolution</i> , <b>2018</b> , 10, 2614-2628	3.9	
236	Direct nucleic acid analysis of mosquitoes for high fidelity species identification and detection of Wolbachia using a cellphone. <i>PLoS Neglected Tropical Diseases</i> , <b>2018</b> , 12, e0006671	4.8	15
235	Phosphorothioated Primers Lead to Loop-Mediated Isothermal Amplification at Low Temperatures. <i>Analytical Chemistry</i> , <b>2018</b> , 90, 8290-8294	7.8	39
234	Amplicon Competition Enables End-Point Quantitation of Nucleic Acids Following Isothermal Amplification. <i>ChemBioChem</i> , <b>2017</b> , 18, 1692-1695	3.8	13
233	Characterization of trimethoprim resistant dihydrofolate reductase mutants by mass spectrometry and inhibition by propargyl-linked antifolates. <i>Chemical Science</i> , <b>2017</b> , 8, 4062-4072	9.4	24
232	Synthetic DNA Synthesis and Assembly: Putting the Synthetic in Synthetic Biology. <i>Cold Spring Harbor Perspectives in Biology</i> , <b>2017</b> , 9,	10.2	166
231	Coupling Sensitive Nucleic Acid Amplification with Commercial Pregnancy Test Strips. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 1012-1016	3.6	16
230	Coupling Sensitive Nucleic Acid Amplification with Commercial Pregnancy Test Strips. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 992-996	16.4	98
229	Genetic alphabet expansion transcription generating functional RNA molecules containing a five-letter alphabet including modified unnatural and natural base nucleotides by thermostable T7 RNA polymerase variants. <i>Chemical Communications</i> , <b>2017</b> , 53, 12309-12312	5.8	15

228	Purification of single-stranded DNA by co-polymerization with acrylamide and electrophoresis. <i>BioTechniques</i> , <b>2017</b> , 62, 275-282	2.5	13
227	The Design Space of Strand Displacement Cascades with Toehold-Size Clamps. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 64-81	0.9	5
226	Charge Shielding Prevents Aggregation of Supercharged GFP Variants at High Protein Concentration. <i>Molecular Pharmaceutics</i> , <b>2017</b> , 14, 3269-3280	5.6	17
225	A Simple, Cleated DNA Walker That Hangs on to Surfaces. <i>ACS Nano</i> , <b>2017</b> , 11, 8047-8054	16.7	82
224	Compartmentalized partnered replication for the directed evolution of genetic parts and circuits. <i>Nature Protocols</i> , <b>2017</b> , 12, 2493-2512	18.8	18
223	Differential array sensing for cancer cell classification and novelty detection. <i>Organic and Biomolecular Chemistry</i> , <b>2017</b> , 15, 9866-9874	3.9	16
222	Massively Parallel Biophysical Analysis of CRISPR-Cas Complexes on Next Generation Sequencing Chips. <i>Cell</i> , <b>2017</b> , 170, 35-47.e13	56.2	62
221	Evolving Orthogonal Suppressor tRNAs To Incorporate Modified Amino Acids. <i>ACS Synthetic Biology</i> , <b>2017</b> , 6, 108-119	5.7	22
220	Synthesis of alanyl nucleobase amino acids and their incorporation into proteins. <i>Bioorganic and Medicinal Chemistry</i> , <b>2016</b> , 24, 4177-4187	3.4	6
219	Design and engineering of a transmissible antiviral defense. <i>Journal of Biological Engineering</i> , <b>2016</b> , 10, 12	6.3	
218	Molecular-level analysis of the serum antibody repertoire in young adults before and after seasonal influenza vaccination. <i>Nature Medicine</i> , <b>2016</b> , 22, 1456-1464	50.5	186
217	Synthesis and structural analyses of phenylethynyl-substituted tris(2-pyridylmethyl)amines and their copper(ii) complexes. <i>Dalton Transactions</i> , <b>2016</b> , 45, 10585-98	4.3	3
216	Synthetic evolutionary origin of a proofreading reverse transcriptase. <i>Science</i> , <b>2016</b> , 352, 1590-3	33.3	84
215	Engineering Signaling Aptamers That Rely on Kinetic Rather Than Equilibrium Competition. <i>Analytical Chemistry</i> , <b>2016</b> , 88, 2250-7	7.8	14
214	Addicting diverse bacteria to a noncanonical amino acid. <i>Nature Chemical Biology</i> , <b>2016</b> , 12, 138-40	11.7	37
213	Ultra-high-throughput sequencing of the immune receptor repertoire from millions of lymphocytes. <i>Nature Protocols</i> , <b>2016</b> , 11, 429-42	18.8	103
212	An in vitro selection for small molecule induced switching RNA molecules. <i>Methods</i> , <b>2016</b> , 106, 51-7	4.6	7
211	Virus wars: using one virus to block the spread of another. <i>PeerJ</i> , <b>2016</b> , 4, e2166	3.1	3

210	Recent advances in synthetic biosafety. <i>F1000Research</i> , <b>2016</b> , 5,	3.6	14
209	Strand-Exchange Nucleic Acid Circuitry with Enhanced Thermo-and Structure- Buffering Abilities Turns Gene Diagnostics Ultra-Reliable and Environmental Compatible. <i>Scientific Reports</i> , <b>2016</b> , 6, 36605	4.9	13
208	A primerless molecular diagnostic: phosphorothioated-terminal hairpin formation and self-priming extension (PS-THSP). <i>Analytical and Bioanalytical Chemistry</i> , <b>2016</b> , 408, 8583-8591	4.4	11
207	Large-scale sequence and structural comparisons of human naive and antigen-experienced antibody repertoires. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, E2636-45	11.5	118
206	Expanded Genetic Codes Create New Mutational Routes to Rifampicin Resistance in Escherichia coli. <i>Molecular Biology and Evolution</i> , <b>2016</b> , 33, 2054-63	8.3	9
205	Design, synthesis, and application of Spinach molecular beacons triggered by strand displacement. <i>Methods in Enzymology</i> , <b>2015</b> , 550, 215-49	1.7	6
204	Synthetic biology: Six pack and stack. <i>Nature Chemistry</i> , <b>2015</b> , 7, 617-9	17.6	2
203	A Sweet Spot for Molecular Diagnostics: Coupling Isothermal Amplification and Strand Exchange Circuits to Glucometers. <i>Scientific Reports</i> , <b>2015</b> , 5, 11039	4.9	54
202	Structural Characterization of Dihydrofolate Reductase Complexes by Top-Down Ultraviolet Photodissociation Mass Spectrometry. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 9128-35	16.4	54
201	Robust strand exchange reactions for the sequence-specific, real-time detection of nucleic acid amplicons. <i>Analytical Chemistry</i> , <b>2015</b> , 87, 3314-20	7.8	96
200	A microbial model of economic trading and comparative advantage. <i>Journal of Theoretical Biology</i> , <b>2015</b> , 364, 326-43	2.3	11
199	In Vitro Selection for Small-Molecule-Triggered Strand Displacement and Riboswitch Activity. <i>ACS Synthetic Biology</i> , <b>2015</b> , 4, 1144-50	5.7	19
198	High-affinity RNA Aptamers Against the HIV-1 Protease Inhibit Both In Vitro Protease Activity and Late Events of Viral Replication. <i>Molecular Therapy - Nucleic Acids</i> , <b>2015</b> , 4, e228	10.7	27
197	Transcription yield of fully 2'Fmodified RNA can be increased by the addition of thermostabilizing mutations to T7 RNA polymerase mutants. <i>Nucleic Acids Research</i> , <b>2015</b> , 43, 7480-8	20.1	44
196	RNA as a conception. <i>Rna</i> , <b>2015</b> , 21, 608	5.8	
195	In-depth determination and analysis of the human paired heavy- and light-chain antibody repertoire. <i>Nature Medicine</i> , <b>2015</b> , 21, 86-91	50.5	259
194	Directed Evolution of a Panel of Orthogonal T7 RNA Polymerase Variants for in Vivo or in Vitro Synthetic Circuitry. <i>ACS Synthetic Biology</i> , <b>2015</b> , 4, 1070-6	5.7	36
193	Next-generation sequencing as input for chemometrics in differential sensing routines. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 6339-42	16.4	5

192	Next-Generation Sequencing as Input for Chemometrics in Differential Sensing Routines. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 6437-6440	3.6	3
191	Real-time sequence-validated loop-mediated isothermal amplification assays for detection of Middle East respiratory syndrome coronavirus (MERS-CoV). <i>PLoS ONE</i> , <b>2015</b> , 10, e0123126	3.7	96
190	One-step tumor detection from dynamic morphology tracking on aptamer-grafted surfaces. <i>Technology</i> , <b>2015</b> , 3, 194-200	3	6
189	Industrialization of Biology. <i>ACS Synthetic Biology</i> , <b>2015</b> , 4, 1053-5	5.7	12
188	Landscape-Based Biology. <i>Journal of Molecular Evolution</i> , <b>2015</b> , 81, 144-5	3.1	1
187	Chemical Tools To Decipher Regulation of Phosphatases by Proline Isomerization on Eukaryotic RNA Polymerase II. <i>ACS Chemical Biology</i> , <b>2015</b> , 10, 2405-14	4.9	18
186	3D Printing with Nucleic Acid Adhesives. <i>ACS Biomaterials Science and Engineering</i> , <b>2015</b> , 1, 19-26	5.5	21
185	Controlled assembly of artificial protein-protein complexes via DNA duplex formation. <i>Bioconjugate Chemistry</i> , <b>2015</b> , 26, 427-34	6.3	1
184	Fine-tuning citrate synthase flux potentiates and refines metabolic innovation in the Lenski evolution experiment. <i>ELife</i> , <b>2015</b> , 4,	8.9	48
183	Alternative ELISA Using a RNA Aptamer against Calf Intestinal Alkaline Phosphatase. <i>FASEB Journal</i> , <b>2015</b> , 29, 562.6	0.9	
182	Diagnostic applications of nucleic acid circuits. <i>Accounts of Chemical Research</i> , <b>2014</b> , 47, 1825-35	24.3	225
181	Structure-based non-canonical amino acid design to covalently crosslink an antibody-antigen complex. <i>Journal of Structural Biology</i> , <b>2014</b> , 185, 215-22	3.4	18
180	Directed evolution of genetic parts and circuits by compartmentalized partnered replication. <i>Nature Biotechnology</i> , <b>2014</b> , 32, 97-101	44.5	103
179	Bacteriophages use an expanded genetic code on evolutionary paths to higher fitness. <i>Nature Chemical Biology</i> , <b>2014</b> , 10, 178-80	11.7	39
178	A proteomic survey of widespread protein aggregation in yeast. <i>Molecular BioSystems</i> , <b>2014</b> , 10, 851-861		40
177	A Spinach molecular beacon triggered by strand displacement. <i>Rna</i> , <b>2014</b> , 20, 1183-94	5.8	42
176	Progress Report on the Generation of Polyfunctional Microscale Particles for Programmed Self-Assembly. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 1457-1462	9.6	4
175	Directed evolution of the substrate specificity of biotin ligase. <i>Biotechnology and Bioengineering</i> , <b>2014</b> , 111, 1071-81	4.9	11



174	Mismatches Improve the Performance of Strand-Displacement Nucleic Acid Circuits. <i>Angewandte Chemie</i> , <b>2014</b> , 126, 1876-1879	3.6	50
173	Modeling Scalable Pattern Generation in DNA Reaction Networks. <i>Natural Computing</i> , <b>2014</b> , 13, 583-595	1.3	4
172	In vitro selection using modified or unnatural nucleotides. <i>Current Protocols in Nucleic Acid Chemistry</i> , <b>2014</b> , 56, 9.6.1-33	0.5	22
171	Design and selection of a synthetic operon. <i>ACS Synthetic Biology</i> , <b>2014</b> , 3, 410-5	5.7	2
170	Library generation by gene shuffling. <i>Current Protocols in Molecular Biology</i> , <b>2014</b> , 105, Unit 15.12.	2.9	12
169	Recursive genomewide recombination and sequencing reveals a key refinement step in the evolution of a metabolic innovation in Escherichia coli. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2014</b> , 111, 2217-22	11.5	50
168	An amino acid depleted cell-free protein synthesis system for the incorporation of non-canonical amino acid analogs into proteins. <i>Journal of Biotechnology</i> , <b>2014</b> , 178, 12-22	3.7	23
167	Differential Sensing of MAP Kinases Using SOX-Peptides. <i>Angewandte Chemie</i> , <b>2014</b> , 126, 14288-14292	3.6	5
166	Mismatches improve the performance of strand-displacement nucleic Acid circuits. <i>Angewandte Chemie - International Edition</i> , <b>2014</b> , 53, 1845-8	16.4	120
165	Design and application of cotranscriptional non-enzymatic RNA circuits and signal transducers. <i>Nucleic Acids Research</i> , <b>2014</b> , 42, e58	20.1	61
164	Exquisite allele discrimination by toehold hairpin primers. <i>Nucleic Acids Research</i> , <b>2014</b> , 42, e120	20.1	5
163	Analyzing machupo virus-receptor binding by molecular dynamics simulations. <i>PeerJ</i> , <b>2014</b> , 2, e266	3.1	7
162	Proliferation and migration of tumor cells in tapered channels. <i>Biomedical Microdevices</i> , <b>2013</b> , 15, 635-643	3.7	26
161	Generalized bacterial genome editing using mobile group II introns and Cre-lox. <i>Molecular Systems Biology</i> , <b>2013</b> , 9, 685	12.2	63
160	Pattern transformation with DNA circuits. <i>Nature Chemistry</i> , <b>2013</b> , 5, 1000-5	17.6	102
159	In vitro selection of proteins via emulsion compartments. <i>Methods</i> , <b>2013</b> , 60, 75-80	4.6	22
158	Real-time detection of isothermal amplification reactions with thermostable catalytic hairpin assembly. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 7430-3	16.4	215
157	Effect of Complementary Nucleobase Interactions on the Copolymer Composition of RAFT Copolymerizations.. <i>ACS Macro Letters</i> , <b>2013</b> , 2, 581-586	6.6	54

156	DNA detection using origami paper analytical devices. <i>Analytical Chemistry</i> , <b>2013</b> , 85, 9713-20	7.8	102
155	Continuous in vitro evolution of a ribozyme ligase: a model experiment for the evolution of a biomolecule. <i>Biochemistry and Molecular Biology Education</i> , <b>2013</b> , 41, 433-42	1.3	
154	Stacking nonenzymatic circuits for high signal gain. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 5386-91	11.5	182
153	Alternative computational protocols for supercharging protein surfaces for reversible unfolding and retention of stability. <i>PLoS ONE</i> , <b>2013</b> , 8, e64363	3.7	50
152	A general RNA motif for cellular transfection. <i>Molecular Therapy</i> , <b>2012</b> , 20, 616-24	11.7	29
151	An in vitro autogene. <i>ACS Synthetic Biology</i> , <b>2012</b> , 1, 190-6	5.7	14
150	Probing spatial organization of DNA strands using enzyme-free hairpin assembly circuits. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 13918-21	16.4	189
149	Origins for Everyone. <i>Evolution: Education and Outreach</i> , <b>2012</b> , 5, 361-366	1.6	6
148	Exploration of plasticizer and plastic explosive detection and differentiation with serum albumin cross-reactive arrays. <i>Chemical Science</i> , <b>2012</b> , 3, 1773	9.4	24
147	Adapting enzyme-free DNA circuits to the detection of loop-mediated isothermal amplification reactions. <i>Analytical Chemistry</i> , <b>2012</b> , 84, 8371-7	7.8	78
146	Spatial control of DNA reaction networks by DNA sequence. <i>Molecules</i> , <b>2012</b> , 17, 13390-402	4.8	13
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6	Deep learning redesign of PETase for practical PET degrading applications		1
5	High-surety isothermal amplification and detection of SARS-CoV-2, including with crude enzymes		33
4	An improved and readily available version of Bst DNA Polymerase for LAMP, and applications to COVID-19 diagnostics		7
3	Multi-modal engineering of Bst DNA polymerase for thermostability in ultra-fast LAMP reactions		2
2	Using structurally fungible biosensors to evolve improved alkaloid biosyntheses		2
1	Evolving a generalist biosensor for bicyclic monoterpenes		1